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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

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January 16, 2004

BY HAND AND/OR ELECTRONICALLY, AS NOTED

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, S.W.  
Washington, D.C. 20554

**Re: DA 03-3585, RM-10821; Wireless Telecommunications Bureau Seeks Comment On MariTEL, Inc. Petition for Declaratory Ruling and National Telecommunications and Information Administration Petition for Rulemaking Regarding the Use of MariTime VHF Channels 87B and 88B; NOTICE OF EX PARTE PRESENTATION; Filed By Hand and Electronically**

**PR Docket No. 92-257; Amendment of the Commission's Rules Concerning Maritime Communications; NOTICE OF EX PARTE PRESENTATION; Filed Electronically**

**ET RM-10743; Commission's Rules to Promote the Use of VHF Public Coast Station Frequencies; NOTICE OF EX PARTE PRESENTATION; Filed Electronically**

**DA 03-1484; MARITEL, Inc. Request to Extend Construction Deadline for Certain VHF Public Coast Station Geographic Area Licenses; NOTICE OF EX PARTE PRESENTATION; Filed by Hand**

Dear Ms. Dortch:

Pursuant to the provisions of Section 1.1206(b) of the rules and regulations of the Federal Communications Commission ("FCC"), this letter provides notice of a meeting between Dan Smith and Jason Smith of MariTEL, Inc. ("MariTEL"), their undersigned counsel and Catherine Seidel, Scot Stone, Jeffrey Tobias and Tim Maguire, all of the Wireless Telecommunications Bureau.

Marlene H. Dortch  
January 16, 2004  
Page 2

At the meeting, MariTEL officials explained their plans to provide a data communications service on the VHF Public Coast ("VPC") channels for which MariTEL is licensed. They explained that harmful interference caused by the proliferation of currently approved automatic identification system ("AIS") devices would prevent MariTEL from successfully introducing its service and would effectively reduce the frequencies, purchased by MariTEL, available to it. MariTEL proposed means by which these matters, and those regarding the request by the United States Coast Guard ("USCG") to dedicate channels 87B and 88B for AIS, could be solved. It stated that it would provide a more complete version of its proposal shortly. MariTEL also noted that although the FCC recently approved its request for extension of time to construct its facilities, it could not effectively do so until matters related to its authorized spectrum, had been resolved. A copy of a presentation made to FCC officials at the meeting is attached.

Should there be any questions regarding this matter, please contact the undersigned directly.

Cordially yours,



Russell H. Fox

Attachment

cc: (each electronically, w/attachment)  
Catherine Seidel  
Scot Stone  
Jeffrey Tobias  
Tim Maguire

WDC 344075v1



# Maritime VHF Data Display

January 15, 2004



## Opportunity Per FCC 80.371

### Maritel Commercial Opportunity:

Use VPC channels to provide AIS based network services in non PAWSS areas for port authorities, local governments, etc. to facilitate "voiceless" maritime communications.

Use channels 87 and 88 to communicate with SOLAS vessels carrying AIS transponders.

Bundle these and other services with traditional voice and/or data VPC services on a CMRS or PMRS basis.

Hypothetical implementation of FCC 80.371: up to (2) narrowband offset duplex channels

83	29
483   283	288   429

### Basis of VPC Auction... "Ground Rules"

up to (2) narrowband offset duplex channels used only in USCG PAWSS VTS operations for ship-shore and shore-ship transmissions (nationwide ship-ship uses 228B) to actively manage the flow of vessels in narrow and congested navigable waterways.



Intel  
Mobile Data Device  
Company

Mobile Data Device

- 12.5 kHz or 25 kHz channel spacing
- Up to 22 kbps
- USB and RS-232 Serial Port for easy networking
- Selective ID and Broadcasting Addressing
- 1 to 6 Watts
- Less than 15 ms transmitter attack time
- On board RAM for "seemingly" faster throughput

Not an experiment

Intel  
Mobile Data Device  
Company

Intel  
Mobile Data Device  
Company

Intel  
Mobile Data Device  
Company



# Product Segmentation

	Cellular				Satellite	
	VHF	GOM Analog	2.5G	3G	VSAT	Satellite
Maximum Bandwidth	22+ kbps	9.6 kbps	50 kbps	Mbps	Mbps	100 kbps - Mbps
Integration to Vessel's Bridge	✓✓✓	✓	✓	✓		✓✓✓
Applications						
Vessel telemetry (ex. Engine diagnostics)	✓✓✓		✓	✓		✓✓
Automatic vessel location ("AVL")	✓✓✓		✓	✓		✓✓
Text messaging	✓✓✓		✓✓✓	✓✓✓		✓✓✓
E-mail	✓✓		✓✓✓	✓✓✓		✓✓✓
Low speed web browsing (Eudora)	✓✓		✓✓✓	✓✓✓		✓✓✓
Full speed web browsing (Explorer)			✓	✓✓✓		✓✓✓
Maximum coverage distance	50 mi	30 mi	15 mi	15 mi	5 mi	25 mi
Monthly price range	\$15 to \$100	\$100 to \$500	\$40 to \$150	\$40 to \$150		\$1,000+
Price of customer equipment	\$500+	\$500+	\$100	\$100		>\$2,000

**Complimentary to broadband technologies and shorter wavelength spectrum.**

 **MARTELL** • **Gulf of Mexico ( "GOM" ) Section**

© 1995 Martell



**MariTEL**

Maritime Company

**USCG PAWSS VTIS Area**

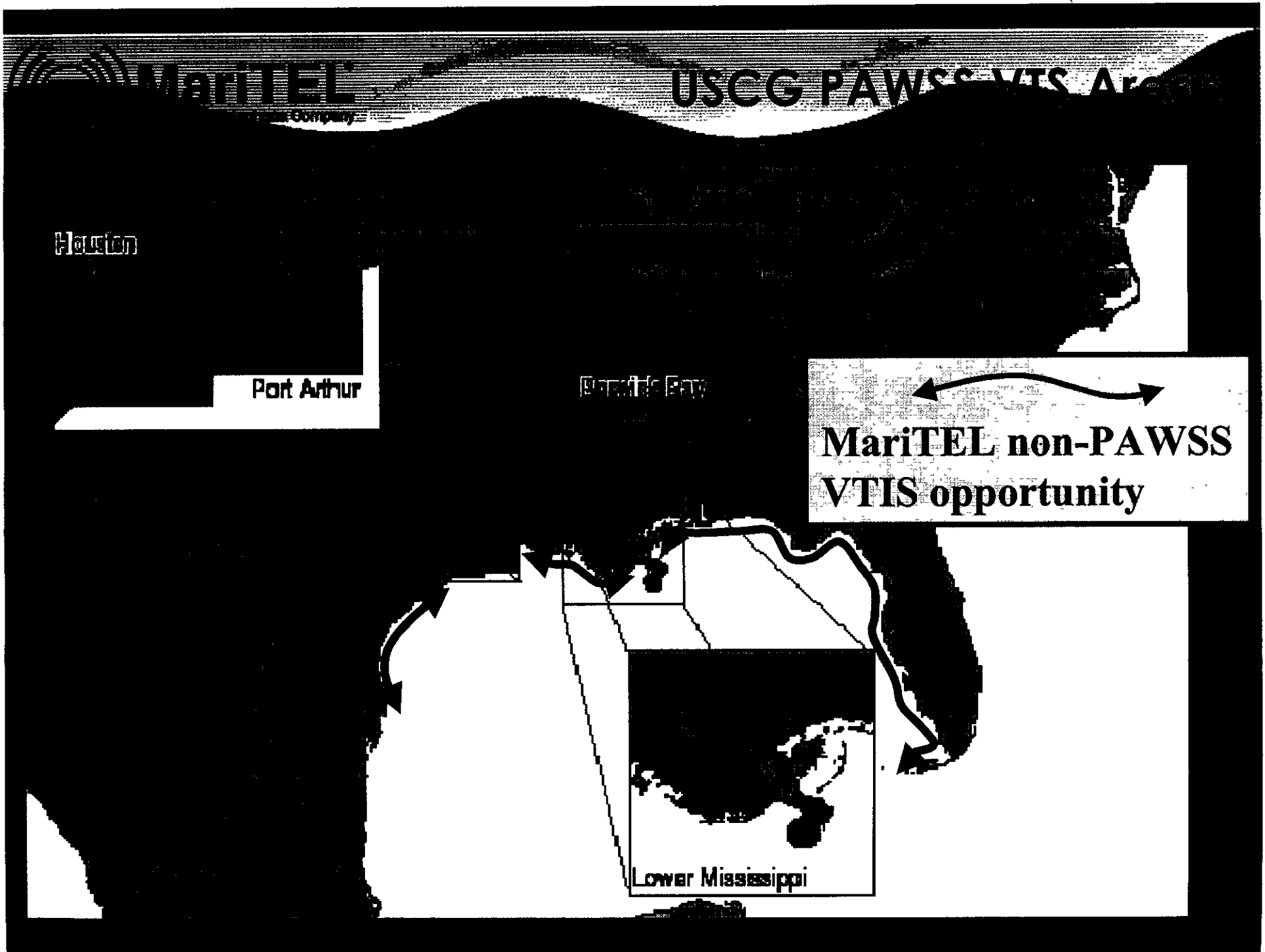
Houston

Port Arthur

Battle Bay

**MariTEL non-PAWSS  
VTIS opportunity**

Lower Mississippi







**MARITEL**

Maritime Communications Company

**GOM Opportunity**

47,000 commercial vessels  
and over 3,000 off-shore oil  
platforms in reach of VHF  
shore stations.

Non-PAWSS port authorities and  
stakeholders in need of voice and  
data maritime communications.

# 3 Consequences of the R

Before meeting obligations of FCC 80.371

83	29
483 283	288 429

Hypothetical implementation of FCC 80.371: up to (2) narrowband offset duplex channels

83	29
483 283	288 429

USCG Request to MarITEL... after the rules were set, narrowband offset duplex

83	29
483 283	288 429

MarITEL / USCG Memorandum of Agreement ("MOA")... switch from 87B (simplex) to 487A/B (duplex)

83	29
483 283	288 429

NTIA Petition... as written (wideband simplex on ship station tx side)

83	88	29
483 283	488	288 429

NTIA Petition... reality of need for "guard band" spectrum

83	27	87	28	88	29
483 283	286	427	227	487	287 428

NTIA / USCG Desire to Take & Warehouse Spectrum

83	24	84	25	85	26	86	27	87	28	88	29									
483 283	424	224	484	284	425	225	485	285	426	226	486	286	427	227	487	287	428	488	288	429



MarITEL

Maritime Company

Legend



MarITEL "wideband" 25 KHz channels



MarITEL "narrowband" 12.5 KHz channels



MarITEL channels above Line A



Narrowband 12.5 KHz duplex channels for PAWSS VTS ship-shore, shore-ship communications



Channel assigned for use in PAWSS by USCG per Section 80.371 (c)(3)



Exclusive use of channel by the licensed party; not above/beyond FCC rules



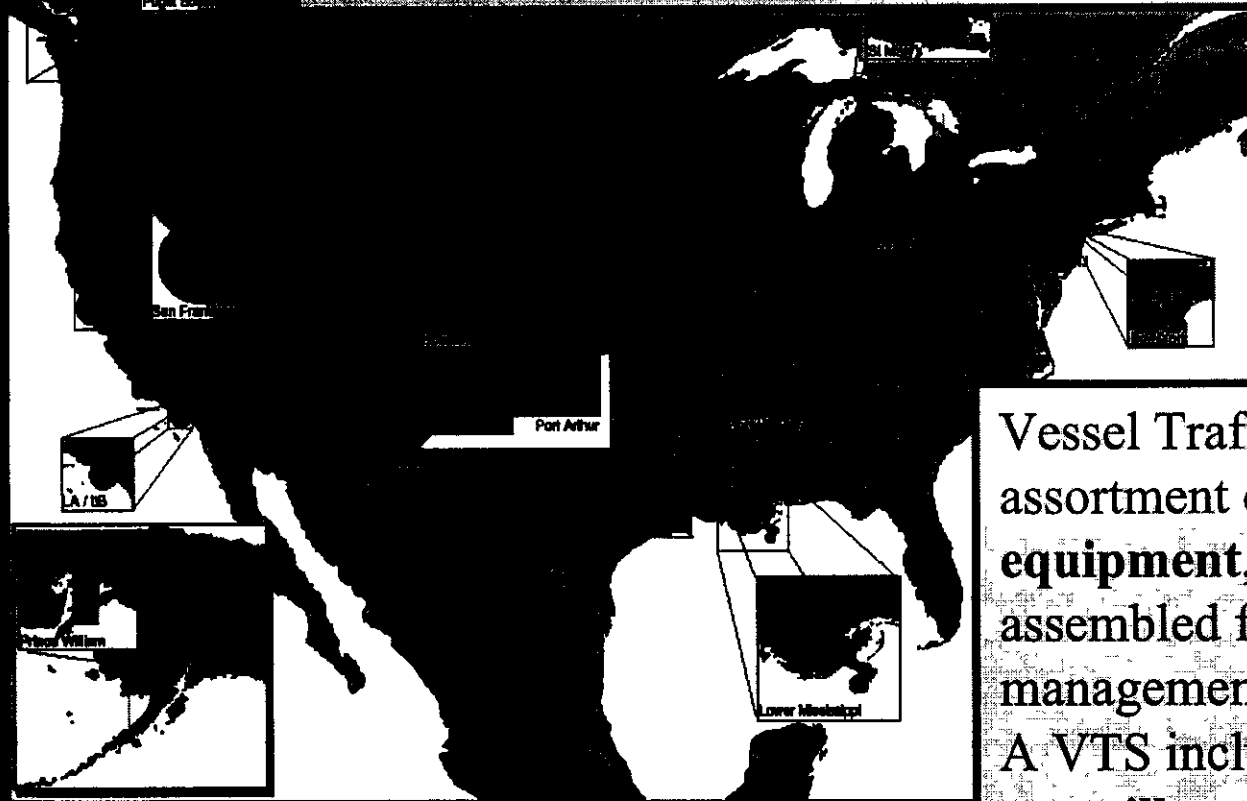
Designate and PROTECT

**MarITEL**

Maritime Company

## Federal vs. Non-Federal

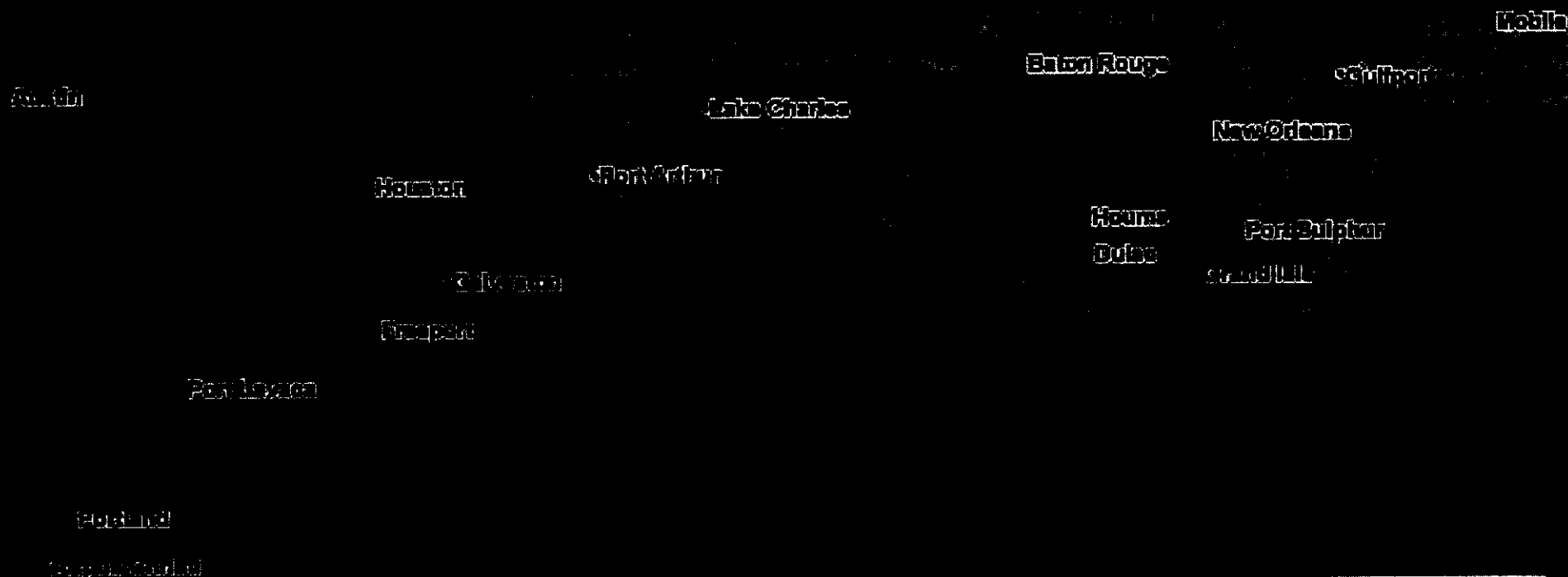
The purpose of a Vessel Traffic Service (VTS) is to provide *active monitoring* and navigational advice for vessels in *particularly confined and busy waterways*.



Vessel Traffic Services (VTS) are the assortment of **personnel, procedures, equipment, and regulations** assembled for the purpose of traffic management in a given body of water. A VTS includes some means of **area surveillance, traffic separation, vessel movement reporting, a traffic center, and enforcement capability.**

Maritel

AIS to VPC Interference



1. Simplex on B-side... "wrong side of the road"
2. AIS 1371-1 transmitter emissions mask... not acceptable for simplex Part 80 operations
3. AIS 1371-1 "Spike Noise"

**"Our experience is that, with the equipment types in use here, the immediate two or three adjacent channels (+/- 100 kHz or so) are not usable when AIS is installed or used at a base station site"... Karl-Arne Markstrom, Senior Radio Engineer, Telia, operator of Swedish national AIS network, July 23, 2003.**

**Bandwidth**

**Federal vs. Non-Federal**

**AIS to VPC Interference**

Result: Overturns the VPC auction  
and eliminates MariTEL's right to  
use its licensed spectrum.

Control the Environment  
Solving the Control  
Problems



# MARITIME / FCC & NTIA Agree

MARITIME / FCC and NTIA agree to designate channels 87B and 88B for 25 kHz simplex AIS use throughout the major navigable waterways on a **shared** government, non-government basis.

No cost to vessel operators for use of spectrum.

Federated government entities allowed to operate shore stations in all areas for AIS and to extend to applications.

MARITIME allowed to operate shore stations in all areas for non-federal government shore station AIS applications.

NTIA and MARITIME share use of both AIS channels using "time slot allocation" techniques.

The SOTDMA broadcast mode allows the system to be overloaded by 400 to 500% through sharing of slots, and still provide nearly 100% throughput for ships closer than 8 to 10 NM to each other in a ship to ship mode. In the event of system overload, only targets further away will be subject to drop-out, in order to give preference to nearer targets that are a primary concern to ship operators. In practice, the capacity of the system is nearly unlimited, allowing for a great number of ships to be accommodated at the same time.

[http://www.navcen.uscg.gov/enav/ais/how\\_AIS\\_works.htm](http://www.navcen.uscg.gov/enav/ais/how_AIS_works.htm)



## Required FCC Action

Remedy 1371-1 ALS interference issues due to current transmitter emissions mask and "spike noise".

Make it illegal for unauthorized shore station transmission **and** reception of ALS signals.

Approve Maritel's PMRS Petition (RM-10743).